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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,113	02/18/2004	Clemens Johannes Maria De Vroome	A-3904	1963

24131 7590 04/05/2007
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EXAMINER

CULLER, JILL E

ART UNIT	PAPER NUMBER
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2854

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/781,113

Applicant(s)

VROOME, CLEMENS JOHANNES
MARIA DE

Examiner

Jill E. Culler

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007 and 21 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5, 7-8, 10-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec in view of U.S. Patent No. 4,508,033 to Fischer, U.S. Patent No. 3,238,869 to West et al., and U.S. Patent No. 3,875,682 to Justus et al.

With respect to claims 1, 5, 7 and 10-15, Niemiec teaches a printing material web processing machine, in the form of a web-fed rotary offset press, comprising: at least one press cylinder, 16, in the form of a driven, rotating element, for printing a web, 14; a dryer, 18, disposed downstream of said press cylinder, said dryer guiding the web along a path; and a first pull roll, 20, which is a driven, rotating cooling roll, disposed downstream of said dryer for conveying the web along the path with a given tensile stress.

Niemiec does not teach an apparatus downstream of the press cylinder and upstream of the dryer for separating the web from said press cylinder during a normal printing operation, or a second pull roll, in the form of a driven, rotating element, disposed downstream of said press cylinder and upstream of said dryer; or a second apparatus for driving said pull roll, said second apparatus driving said first pull roll at a

rotational speed being reduced as compared with a rotational speed of said press cylinder in order to set the tensile stress to a value suitable for conveying the web after separation from the press cylinder, such that the tensile stress is considerably lower than a tensile stressing a printing path upstream of said at least one printing cylinder, said given tensile stress being less than 50 N/m.

Fischer teaches a printing press having a pull roll, 14, 15, which is a driven, rotating element, disposed downstream of a press cylinder, 5, and upstream of a dryer, 8.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll of Fischer with the printing machine of Niemiec in order to more smoothly transition the web from the printing press cylinders into the dryer.

West et al. teaches an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Niemiec to have a separating apparatus, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Justus et al. teaches an apparatus for driving a pull roll for a web at a rotational speed being reduced as compared to a rotational speed of a press cylinder in order to set the tensile stress to a value suitable for conveying the web after separation from the press cylinder, thereby providing a tensile stress considerably lower than that in a

printing path upstream of said at least one press cylinder. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll driving apparatus of Justus et al. with the pull roll of Niemiec in order to enhance the tendency of the edge roll to eliminate flutter.

Although Niemiec does not explicitly teach controlling the second tensile stress to a value less than 50 N/m, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the web and therefore the ideal values could be best determined through routine experimentation.

With respect to claims 2 and 8, Niemiec does not teach a third apparatus for controlling the rotational speed of the first pull roll and of the press cylinder, said third apparatus controls the rotational speed of said pull roll to a value below a value of the rotational speed of said press cylinder.

Justus et al. teaches an apparatus for driving a pull roll for a web at a rotational speed being reduced as compared to a rotational speed of a press cylinder. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll driving apparatus of Justus et al. with the pull roll of Niemiec in order to enhance the tendency of the edge roll to eliminate flutter.

With respect to claims 16-18 and 22, Niemiec does not teach that the drying path is composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal.

Justus et al. teaches a drying path composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal. See Figure 1.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the drying path of Justus et al. with the dryer of Niemiec in order to reduce flutter and improve drying efficiency.

With respect to claim 20, although Niemiec does not explicitly teach controlling the second tensile stress such that the drying path has a radii of curvature following one another of in each case less than 200 mm, these values would appear to be specific to a given application and could be readily determined by routine experimentation.

With respect to claim 21, Niemiec teaches the use of a dryer, 8, through which a temperature of the web along the drying path would increase.

3. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Fischer, West et al. and Justus et al., as applied to claims 1-2, 5, 7-8, 10-18 and 20-22 above and further in view of U.S. Patent No. 6,550,390 to Frankenberger.

Niemiec, Fischer, West et al. and Justus et al. teach all that is claimed, as in the above rejection of claims 1-2, 5, 7-8, 10-18 and 20-22 except that the first apparatus for

separating the web from said press cylinder separates the web from said press cylinder without contact, having at least one element selected from the group consisting of blowing elements and ultrasound elements.

Frankenberger teaches an apparatus for separating a web from a cylinder using ultrasonic waves to separate the web without contact. See column 4, lines 45-60.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ultrasonic separation device of Frankenberger in order to be able to separate the web from the cylinder with less potential for damage to the web.

4. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Fischer, West et al. and Justus et. al., as applied to claims 1-2, 5, 7-8, 10-18 and 20-22 above, and further in view of U.S. Patent No. 5,913,471 to Makosch et al.

Niemiec, Fischer, West et al. and Justus et al. teach all that is claimed, as in the above rejection of claims 1-2, 5, 7-8, 10-18 and 20-22, except that the second pull roll is configured or coated in an ink-repellent manner, at least in some sections.

Makosch et al. teaches a separating roll, 3a, 4a, for a printing press that is configured or coated in an ink-repellent manner. See column 3, lines 25-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ink repellant

separating roll, as taught by Makosch et al. in order to prevent an ink layer from building up.

Response to Arguments

5. Applicant's arguments filed January 22, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the conventional tensile stress for a printing path is around 500 N/m, there is no reference to any outside source beyond applicant's disclosure of this figure. Furthermore, as discussed in the above rejection, one having ordinary skill in the art would recognize that an optimal tensile stress would vary dependent upon the type of material used in the web. For example, a thin, paper web would react very differently to stress from a heavy, textile fabric. Therefore, applicant's arguments would appear to be based upon specific process limitations not included in the claims.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Justus teaches the advantages of a reduced tensile stress. Applicant's arguments with respect to a

tensile stress 10% of the conventional tensile stress are not considered to be significant, as this limitation is not found in the claims and the definition of conventional tensile stress appears to be based upon undisclosed limitations, as discussed above.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jec

Jill E. Gullik
Patent Examiner